[DOCUMENT NAME] SCOPE OF CLAIM FOR PATENT

1 An information providing system for providing information responding to a retrieval request from a terminal, characterized in comprising:

5   a database having information, which an information provider provides, and a bid amount of money of said information stored correspondingly;

a displaying order deciding means for selecting corresponding pieces of information from said database

10 responding to the retrieval request of information to decide a displaying order of said information based upon the bid amount of money that corresponds to each of these pieces of information; and

a means for transmitting information to the terminal

15 so that information is displayed in said decided displaying order.

2 The information providing system according to claim 1, characterized in that said displaying order deciding means

20 is configured so as to decide the displaying order of information based upon a probability that is calculated from a ratio of the bid amount of money of each selected information over a sum of bid amounts of money of selected pieces of information.

25

3 The information providing system according to claim 2, characterized in that:

said displaying order deciding means comprises:

a sum-of-bid-amount-of-money calculating means for
5 acquiring the bid amount of money that correspond to information to calculate a sum of these bid amounts of money;

a ratio calculating means for calculating a ratio of the bid amount of money of information over said sum of
10 bid amounts of money information by information; and

a displaying order deciding means for deciding one piece of information, which is displayed, from pieces of information based upon a probability proportional to magnitude of said calculated ratio of each information;
15 and

said displaying order deciding means is configured so that:

in a case where the number of selected pieces of information is m and the number of display is n, said sum-
20 of-bid-amount-of-money calculating means calculates a sum of bid amounts of money of m pieces of information, said ratio calculating means calculates a ratio of the bid amount of money of each of m pieces of information, and said displaying order deciding means decides information
25 of which the displaying order is a first rank based upon a

probability proportional to magnitude of each of said
ratios of m pieces of information;

continuously, said sum-of-bid-amount-of-money
calculating means calculates a sum of bid amounts of money
5   of (m-1) pieces of information except the bid amount of
money of the information decided in said displaying order
deciding means, said ratio calculating means calculates a
ratio of the bid amount of money of each of (m-1) pieces
of information except the bid amount of money of the
10   information decided in said displaying order deciding
means, and said displaying order deciding means decides
information of which the displaying order is a second rank
based upon a probability proportional to magnitude of each
of said ratios of (m-1) pieces of information;

15   this computation is performed until information of
which the displaying order is an (n-1)-th rank is decided;
and

finally, said sum-of-bid-amount-of-money calculating
means calculates a sum of bid amounts of money of (m-n+1)
20   pieces of information except the bid amount of money of
the information decided in said displaying order deciding
means, said ratio calculating means calculates a ratio of
the bid amount of money of each of (m-n+1) pieces of
information except the information decided in said
25   displaying order deciding means, and said displaying order

deciding means decides information of which the displaying

order is an n-th rank based upon a probability

proportional to magnitude of each of said ratios of (m-

n+1) pieces of information, thereby allowing the

5   displaying order of information ranging from a first rank

up to an n-th rank to be decided.

4 The information providing system according to one of

claim 2 and claim 3, characterized in that:

10   said information providing system comprises:

a means for recording the number of times of display

of each information in the terminal;

a means for recording the click number of each

information displayed in the terminal; and

15   a means for calculating a ratio of the click number to

said number of times of display for each selected

information; and

said displaying order deciding means decides the

displaying order of information based upon a probability

20   that is calculated from a ratio of the bid amount of money

of information over said sum of bid amounts of money and a

ratio of the click number to said number of times of

display.

25 5 A program of an information providing server for

providing information responding to a retrieval request from a terminal, characterized in causing said server to function as;

a displaying order deciding means for, responding to the retrieval request of information, selecting corresponding pieces of information from a database having information, which an information provider provides, and a bid amount of money of said information stored correspondingly to decide the displaying order of said information based upon the bid amount of money that correspond to each of theses pieces of information; and

a means for transmitting information to the terminal so that information is displayed in said decided displaying order.

6 The program according to claim 5, characterized in causing said displaying order deciding means to decide the displaying order of information based upon a probability that is calculated from a ratio of the bid amount of money of each selected information over a sum of bid amounts of money of selected pieces of information.

7 The program according to claim 6, characterized in: causing said displaying order deciding means to function as:

a sum-of-bid-amount-of-money calculating means for acquiring the bid amount of money that corresponds to information to calculate a sum of these bid amounts of money;

5   a ratio calculating means for calculating a ratio of the bid amount of money of information over said sum of bid amounts of money information by information; and

a displaying order deciding means for deciding one piece of information, which is displayed, from pieces of
10   information based upon a probability proportional to magnitude of said calculated ratio of each information; and

causing said displaying order deciding means to operate so that:

15   in a case where the number of selected information is m, and the number of the display is n, said sum-of-bid-amount-of-money calculating means calculates a sum of bid amounts of money of m pieces of information, said ratio calculating means calculates a ratio of the bid amount of
20   money of each of m pieces of information, and said displaying order deciding means decides information of which the displaying order is a first rank based upon a probability proportional to magnitude of each of said ratios of m pieces of information;

25   continuously, said sum-of-bid-amount-of-money

calculating means calculates a sum of bid amounts of money
of (m-1) pieces of information except the bid amount of
money of the information decided in said displaying order
deciding means, said ratio calculating means calculates a

5   ratio of the bid amount of money of each of (m-1) pieces
of information except the bid amount of money of the
information decided in said displaying order deciding
means, and said displaying order deciding means decides
information of which the displaying order is a second rank

10   based upon a probability proportional to magnitude of each
of said ratios of (m-1) pieces of information;

this computation is performed until information of
which the displaying order is an (n-1)-th rank is decided;
and

15   finally, said sum-of-bid-amount-of-money calculating
means calculates a sum of bid amounts of money of (m-n+1)
pieces of information except the bid amount of money of
the information decided in said displaying order deciding
means, said ratio calculating means calculates a ratio of

20   the bid amount of money of each of (m-n+1) pieces of
information except the bid amount of money of the
information decided in said displaying order deciding
means, and said displaying order deciding means decides
information of which the displaying order is an n-th rank

25   based upon a probability proportional to magnitude of each

of said ratios of (m-n+1) pieces of information, thereby allowing the displaying order of information ranging from a first rank up to an n-th rank to be decided.

5   8 The program according to one of claim 6 and claim 7, characterized in causing:

said server to function as:

a means for recording the number of times of display of each information in a terminal;

10   a means for recording the click number of each information displayed in the terminal; and

a means for calculating a ratio of the click number to said number of times of display for each selected information; and

15   said displaying order deciding means to operate so that the displaying order of information is decided based upon a probability that is calculated from a ratio of the bid amount of money of information over said sum of bid amounts of money and a ratio of the click number to said

20   number of times of display.

9 An information providing method of providing information responding to a retrieval request from a terminal, characterized in comprising:

25   a displaying order deciding step of selecting pre-

stored pieces of information responding to the retrieval request of information to decide a displaying order of information based upon a bid amount of money that corresponds to each of these pieces of information; and

5   a step of transmitting information to the terminal so that information is displayed in said decided displaying order.

10 The information providing method according to claim 9,

10 characterized in that said displaying order deciding step is a step of deciding the displaying order of information based upon a probability that is calculated from a ratio of the bid amount of money of each selected information over a sum of bid amounts of money of selected pieces of

15 information.

11 The information providing method according to claim 10, characterized in that in said displaying order deciding step:

20   in a case where the number of selected information is m, and the number of display is n, a sum of bid amounts of money of m pieces of information is calculated, a ratio of the bid amount of money of information over said sum of bid amounts of money of m pieces of information is

25 calculated, and information of which the displaying order

is a first rank is decided based upon a probability
proportional to magnitude of each of said ratios of m
pieces of information;

continuously, a sum of bid amounts of money of (m-1)
5   pieces of information except the bid amount of money of
said decided information is calculated, a ratio of the bid
amount of money of information over said sum of bid
amounts of money of (m-1) pieces of information except the
bid amount of money of said decided information is
10   calculated, and information of which the displaying order
is a second rank is decided based upon a probability
proportional to magnitude of each of said ratios of (m-1)
pieces of information;

this computation is performed until information of
15   which the displaying order is an (n-1)-th rank is decided;
and

finally, a sum of bid amounts of money of (m-n+1)
pieces of information except the bid amount of money of
said decided information is calculated, a ratio of the bid
20   amount of money of information over said sum of bid
amounts of money of (m-n+1) pieces of information except
said decided information is calculated, and information of
which the displaying order is an n-th rank is decided
based upon a probability proportional to magnitude of each
25   of said ratios of (m-n+1) pieces of information, thereby

allowing the displaying order of information ranging from a first rank up to an n-th rank to be decided.

12 The information providing method according to one of claim 10 and claim 11, characterized in including the steps of:

recording the number of times of display of each information in a terminal and the click number of each information displayed in the terminal; and

deciding the displaying order of information based upon a probability that is calculated from a ratio of the bid amount of money of information over said sum of bid amounts of money and a ratio of the click number to said number of times of display.

13 An advertisement information publishing system for providing advertisement information responding to a retrieval request from a terminal, characterized in comprising:

a database having advertisement information and a bid amount of money of said advertisement stored correspondingly;

an advertisement publishing order deciding means for, responding to the retrieval request from the terminal, selecting corresponding pieces of advertisement

information from said database to deciding an advertisement publishing order of said advertisement information based upon a bid amount of money of each of these pieces of advertisement information; and

5   a means for transmitting advertisement information to the terminal so that an advertisement is displayed in said decided advertisement publishing order.

14   The advertisement information publishing system
10   according to claim 13, characterized in that said advertisement publishing order deciding means is configured so as to decide the advertisement publishing order based upon a probability that is calculated from a ratio of the bid amount of money of each advisement that
15   becomes an object of display over a sum of bid amounts of money of advertisements that become an object of display.

15   An advertisement information publishing method of providing advertisement information responding to a
20   retrieval request from a terminal, characterized in comprising:

a step of selecting corresponding pieces of advertisement information responding to the retrieval request from the terminal;
25   an advertisement publishing order deciding step of

deciding an advertisement publishing order of
advertisement information based upon the bid amount of
money of each of said selected pieces of advertisement
information; and

5   a step of transmitting advertisement information to
the terminal so that an advertisement is displayed in said
decided advertisement publishing order.

16 The advertisement information publishing method
10 according to claim 15, characterized in that said
advertisement publishing order deciding step is a step of
deciding the advertisement publishing order based upon a
probability that is calculated from a ratio of the bid
amount of money of each advisement that becomes an object
15 of display over a sum of bid amounts of money of
advertisements that become an object of display.

17 A controlling program of an information processing
unit for providing advertisement information responding to
20 a retrieval request from a terminal, characterized in
causing said information processing unit to function as:
     an advertisement publishing order deciding means for,
responding to the retrieval request from the terminal,
selecting corresponding pieces of advertisement
25 information from a database having advertisement

information and a bid amount of money of an advertisement
stored correspondingly to deciding an advertisement
publishing order of said advertisement information based
upon the bid amount of money of each of these pieces of

5   advertisement information; and

a means for transmitting advertisement information to
the terminal so that an advertisement is displayed in said
decided advertisement publishing order.

10   18   The controlling program of an information processing
unit according to claim 17, characterized in causing said
information processing unit to function as a means for
deciding the advertisement publishing order based upon a
probability that is calculated from a ratio of the bid

15   amount of money of each advertisement that becomes an
object of display over a sum of bid amounts of money of
advertisements that become an object of display.